TABLE OF CONTENTS

To Volume 74, May–August, 1973

ADAMS, ALICE, Transposition of the arsenate resistance locus of *Bacillus subtilis* strains 23 and 168 197–213

ALLENDORF, FREDERICK W. and FRED M. UTTER, Gene duplication within the family salmonidae: Disomic inheritance of two loci reported to be tetrasomic in rainbow trout 647–654

BALKAU, B. J. and MARCUS W. FELDMAN, Selection for migration modification 171–174

BIRKY, C. W., JR., On the origin of mitochondrial mutants: Evidence for intracellular selection of mitochondria in the origin of antibiotic-resistant cells in yeast 421–432

BORDEN, D., E. T. MILLER, D. L. NANNEY and G. S. WHITT, The inheritance of enzyme variants for tyrosine aminotransferase, NADP-dependent malate dehydrogenase, NADP-dependent isocitrate dehydrogenase, and tetrazolium ovidase in *Tetrahymena pyriformis*, syngen 1 595–603

BUSH, JOHN W. and ALVIN MARKOVITZ, The genetic basis for mucoidy and radiation sensitivity in *capR(Ion)* mutants of *E. coli* K-12 215–225

BYRNE, BRUCE C., Mutational analysis of mating type inheritance in syngen 4 of *Paramecium aurelia* 63–80

CAMPBELL, D. A., The induction of mitotic gene conversion by X-irradiation of haploid *Saccharomyces cerevisiae* 243–258

CHEVALLIER, M. R. and M. L. GRETH, UV sensitivity of several genetic markers of *Haemophilus influenzae* DNA 405–420

CHILTON, MARY-DELL and BRIAN J. MCCARTHY, DNA from maize with and without B chromosomes: a comparative study 605–614

COCKERHAM, C. CLARK, Analyses of gene frequencies 679–700

COCKERHAM, C. CLARK, Analyses of gene frequencies of mates 701–712

DOERDER, F. P., Regulatory serotype mutations in *Tetrahymena pyriformis*, syngen 1 .. 81–106

EISEN, E. J., J. P. HANRAHAN and J. E. LEGATES, Effects of population size and selection intensity on correlated responses to selection for post-weaning gain in mice 157–170

FARBER, ROSANN A., Gene dosage and the expression of electrophoretic patterns in heteroploid mouse cell lines 521–531

FELDMAN, MARCUS W. and BEVERLY BALKAU, Selection for linkage modification, II. A recombination balance for neutral modifiers 713–726

FITZ-EARLE, M., D. G. HOLM and D. T. SUZUKI, Genetic control of insect populations. I. Cage studies of chromosome replacement by compound autosomes in *Drosophila melanogaster* 461–475

FRANCIS, J. C. and P. E. HANSCHE, Directed evolution of metabolic pathways in microbial populations. II. A repeatable adaptation in *Saccharomyces cerevisiae* 259–265

FRANKEL, ANNE W. KOOPMANS, The timing of temperature sensitivity of leaky fertility factor mutations in male *Drosophila melanogaster* 115–132

GUSSIN, GARY, VICTORIA PETERSON and NANCY LOEB, Deletion mapping of the λ *rex* gene 385–392

GUTZ, HERBERT and FRANK J. DOE, Two different *h*⁻ mating types in *Schizosaccharomyces pombe* 563–569

HANSON, W. D. and R. H. MOLL, Experimental evaluation of relationships among populations resulting from intergradation among cultivars of *Zea mays* (L.) 133–138

HARTL, DANIEL L., The mechanism of a brooding effect associated with segregation distortion in *Drosophila melanogaster* 619–631

HARTWELL, LELAND H., ROBERT K. MORTIMER, J. CULOTTI and M. CULOTTI, Genetic control of the cell division in yeast: V. Genetic analysis of *cdc* mutants 267–286

HOESS, RONALD H. and ROBERT K. HERMAN, Segregation of induced frameshift mutations and the sequence of gene replication in *Escherichia coli* K-12 227–242

KINGSBURY, DAVID T. and DONALD R. HELINSKI, Temperature sensitive mutants for the replication of plasmids in *Escherichia coli*. I. Isolation and specificity of host and plasmid mutations 1–16

KINGSBURY, DAVID T., DONNA G. SIECKMANN and DONALD R. HELINSKI, Temperature sensitive mutants for the replication of plasmids in *Escherichia coli*. II. Properties of host and plasmid mutations 17–31

KLAIMI, Y. Y. and C. O. QUALSET, Genetics of heading time in wheat (*Triticum aestivum* L.). I. The inheritance of photoperiodic response 139–156

KOLTIN, Y. and JUDITH STAMBERG, Genetic control of recombination in *Schizophyllum commune:* Location of a gene controlling B-factor recombination 55–62

KORCH, CHRISTOPHER T., Allelic complementation in the first gene for histidine biosynthesis in *Saccharomyces cerevisiae*. II. Complementation mapping of mutants and a subunit model of the enzyme 307–329
KORCH, CHRISTOPHER T. and RICHARD SNOW, Allelic complementation in the first gene for histidine biosynthesis in *Saccharomyces cerevisiae*. I. Characteristics of mutants and genetic mapping of alleles 287–305
LEFEVRE, G., JR. and T. K. JOHNSON, Evidence for a sex-linked haplo-inviable locus in the cut-singed region of *Drosophila melanogaster* 633–645
LEWONTIN, R. C. and JESSE KRAKAUER, Distribution of gene frequency as a test of the theory of the selective neutrality of polymorphisms 175–195
MARONI, GUSTAVO and WALTER PLAUT, Dosage complementation in *Drosophila melanogaster triploids*. II. Glucose-6-phosphate dehydrogenase activity 331–342
MAYER, V. W., Induction of mitotic crossing over in *Saccharomyces cerevisiae* by breakdown products of dimethylnitrosamine, diethylnitrosamine, 1-naphthylamine and 2-naphthylamine formed by an *in vitro* hydroxylation system 433–442
MCCOY, J. WYNNE, A temperature-sensitive mutant in *Tetrahymena pyriformis*, syngen 1 107–114
MILKMAN, ROGER, A competitive selection model 727–732
MINAMORI, SUMIO and KINUE SUGIMOTO, Extrachromosomal element delta in *Drosophila melanogaster*. IX. Induction of delta-retaining chromosome lines, by mutation and gene mapping 477–487
MORTIMER, R. K. and D. C. HAWTHORNE, Genetic mapping in Saccharomyces. IV. Mapping of temperature sensitive genes and use of disomic strains in localizing genes 33–54
NEI, MASATOSHI and A. K. ROYCHOUDHURY, Probability of fixation and mean fixation time of an overdominant mutation 371–380
OSHIMA, CHOZO and TAKAO K. WATANABE, Sterility genes in natural populations of *Drosophila melanogaster*. I. Frequency, allelism and persistence 351–361
PALENZONA, DOMENICO LORENZO and RITA ALICCHIO, Differential response to selection on the two sexes in *Drosophila melanogaster* 533–542
POLACCO, JOSEPH C. and S. R. GROSS, The product of the *leu*-3 cistron as a regulatory element for the production of the leucine biosynthetic enzymes of Neurospora 443–459
RICCIUTI, FLORENCE C. and FRANK H. RUDDLE, Assignment of three loci (PGK, HGPRT, G6PD) to the long arm of the human X chromosome by somatic cell genetics 661–678
SCHWARTZ, DREW, Comparisons of relative activities of maize Adh_1 alleles in heterozygotes—analyses at the protein (CRM) level 615–617
SIROTNAK, F. M. and R. W. MCCUEN, Hyperproduction of dihydrofolate reductase in *Diplococcus pneumoniae* after mutation in the structural gene. Evidence for an effect at the level of transcription 543–556
SMITH, M. DIANE, RONALD R. GREEN, LYNN S. RIPLEY and JOHN W. DRAKE, Thymineless mutagenesis in bacteriophage T4 393–403
SOMERS, J. M., Isolation of suppressive sensitive mutants from killer and neutral strains of *Saccharomyces cerevisiae* 571–579
STINO, F. K. R. and K. W. WASHBURN, Divergent selection under two nutritional environments for packed erythrocyte volume in Japanese quail 363–369
SUOMALAINEN, ESKO and ANSSI SAURA, Genetic polymorphism and evolution in parthenogenetic animals. I. Polyploid curculionidae 489–508
TASASKA, S. ELAINE and DAVID T. SUZUKI, Temperature-sensitive mutations in *Drosophila melanogaster*. XVII. Heat- and cold-sensitive lethals on chromosome 3 509–520
THOMAS, P. E., J. J. HUTTON and B. A. TAYLOR, Genetic relationship between aryl hydrocarbon hydroxylase inducibility and chemical carcinogen induced skin ulceration in mice 655–659
THWAITES, WILLIAM M., FREDERICK K. KNAUERT, JR. and SUSAN S. CARNEY, Complementation analysis of metabolite resistant mutations with forced heterokaryons of *Neurospora crassa* 581–593
TIRABY, GERARD and ARNOLD W. RAVIN, Recognition of streptococcal DNA by a mutant pneumococcus unable to discriminate among markers in pneumococcal DNA 557–562
WHEAT, T. E., G. S. WHITT and W. F. CHILDERS, Linkage relationship of six enzyme loci in inter-specific sunfish hybrids (genus *Lepomis*) 343–350